
Hot-rolled steel sheet of structural quality

Tôles en acier de construction laminées à chaud

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 12, *Continuous mill flat rolled products*.

This sixth edition cancels and replaces the fifth edition (ISO 4995:2008), which has been technically revised.

Hot-rolled steel sheet of structural quality

1 Scope

This International Standard applies to hot-rolled steel sheet of structural quality in the grades listed in [Table 1](#), usually prepared without the use of microalloying elements. The product is intended for structural purposes where particular mechanical properties are required. It is generally used in the delivered condition and is intended for bolted, riveted, or welded structures. This product is produced on a wide strip mill, not a plate mill.

This International Standard does not cover steels intended for boilers or pressure vessels, steels designated as commercial quality or drawing quality (covered in ISO 3573[1]), steels to be re-rolled to cold-reduced products, or steels designated as weathering steels, having increased atmospheric corrosion resistance.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable to its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 13976, *Hot-rolled steel sheet in coils of structural quality and heavy thickness*

ISO 16160, *Hot-rolled steel sheet products — Dimensional and shape tolerances*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

microalloying element

element, such as niobium, vanadium, titanium, added singly or in combination to obtain higher strength levels combined with better formability, weldability, and toughness as compared with non-alloyed steel produced to equivalent strength levels

3.2

hot-rolled steel sheet

product obtained by rolling heated steel through a continuous-type or reversing-type wide strip-mill to the required sheet thickness, the product having a surface covered with oxide or scale resulting from the hot-rolling operation

3.3

hot-rolled descaled steel sheet

hot-rolled steel sheet from which oxide or scale has been removed, commonly by pickling in an acid solution

Note 1 to entry: Descaling may also be performed by mechanical methods such as grit blasting. Some change in properties can result from descaling.

3.4

edges